## REMARKS

It is recognized that the Patent and Trademark Office considers any application containing any additional material from a parent application to be a continuation-in-part. Accordingly, the first paragraph of the specification has been amended to identify this application as a continuation-in-part, as the examiner requested. The applicant reserves the right to a determination of priority.

Claims 1 through 7, and 9 through 16 are presented for prosecution. Claim 8 has been cancelled. The applicant greatly appreciates the Examiner's thorough and detailed Action and suggestions for response. The claims have been extensively amended and the Examiner's suggeations have been incorporated into the amended claims. The claims have been narrowed to plating media for the identification of Salmonella bacteria, and substrates that react to the beta-galactosidase enzyme. In addition, the claims have been amended to clarify the identification process, and as amended the claims are believed to be definite.

It is noted that claims 10 and 11 were allowed and claim 16 found to contain patentable subject matter. No reference ha been applied to the claims. Hence, it is believed that the claims contain patentable subject matter.

For the reasons expressed above, it is believed that the claims as amended are proper in form and directed to patentable subject matter. Favorable action is solicited.

Respectfully submitted,

Marshall A. Burmeister

Marshall A. Burmeister
P.O. Box 765
Williams Bay, Wisconsin 53191
Telephone (312) 372-1345

CERTIFICATE OF MAILING

I hereby certify that the foregoing AMENDMENT is being deposited with the U.S. Postal Service, postage prepaid, first class mail, in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 this 30th day of September 2005.

Marshall A. Burmeister

LISTING OF CLAIMS WITH AMENDMENTS

1. (Currently amended) An isolation plating medium for the identification of Salmonella ~~target~~ bacteria from ~~in~~ a sample likely to contain Salmonella ~~containing target~~ bacteria and ~~a plurality of~~ other bacteria, said other bacteria releasing the enzyme beta-galactosidase on reacting with a metabolic source, comprising a mixture of (1) a carbohydrate capable of being a metabolic source for Salmonella ~~the target~~ bacteria and supporting colonies of ~~the target bacteria~~ Salmonella but incapable of being a metabolic source for said other bacteria, the metabolic reaction between Salmonella and the carbohydrate releasing acid into the portion of the medium of the reaction, (2) a pH indicator dye that changes the color of said portion of the plating medium ~~responsive to a change in the pH of the medium~~ to a first color different from the color of the medium responsive to a change in the pH of said portion of the medium, (3) a first substrate that does not react with Salmonella ~~the target~~ bacteria but reacts to the enzyme beta-galactosidase to produce a second ~~and injects~~ color ~~into~~ in the medium where it is acted upon by the enzyme beta-galactosidase, ~~of a second color responsive to the presence of an enzyme produced by a reaction between other bacteria and said first substrate~~, the second color contrasting with the first color and the color of the medium, (4) a second substrate that does not react with Salmonella ~~the target~~ bacteria but reacts to the enzyme beta-galactosidase to produce said second ~~and injects~~ color ~~into~~ in the medium where it is reacted upon by the enzyme beta-galactosidase of ~~substantially the same color as the second color responsive to the presence of an enzyme produced by a reaction between other bacteria and said second substrate~~, the first substrate reacting to the presence of the enzyme beta-galactosidase ~~an enzyme~~ in a significantly shorter time than the second substrate reacts to said enzyme, whereby colonies of said other bacteria contain the second color, and (5) an ingredient for thickening the mixture in sufficient quantity to solidify the mixture.

2. (Currently amended) An isolation plating medium for the identification of Salmonella ~~target~~ bacteria from ~~in~~ a sample likely to contain Salmonella ~~containing target~~ bacteria and ~~a plurality of~~ other bacteria comprising the medium of claim 1 wherein the carbohydrate is one or more members of the group consisting of 2-Deoxy-D-Ribose, xylose, mannitol, dulcitol, sorbitol, L-rhamnose and D-arabitol.

3. (Currently amended) An isolation plating medium for the identification of Salmonella ~~target~~ bacteria from ~~in~~ a sample likely to contain Salmonella ~~containing target~~ bacteria and ~~a plurality of~~ other bacteria comprising the medium of claim 1 wherein the first substrate and the second substrate are members of the group

consisting of 5-bromo-4-chloro-3-indoxyl-beta-D-galactopyranoside, 5-bromo-6-chloro-3-indoxyl-beta-D-galactopyranoside, 3-indoxyl-beta-D-galactopyranoside, 6-chloro-3-indoxyl-beta-D-galactopyranpside, 4-nitrophenyl-beta-D-galactopyranoside, 2-nitrophenyl-beta-D-galactopyranoside, 5-iodo-3-indoxyl-beta-D-galactopyranoside, 4-methylumbelliferyl-beta-D-galactopyranoside and N-methylindoxyl-beta-D-galactopyranoside.

4. (Currently amended) An isolation plating medium for the identification of Salmonella ~~target~~ bacteria from ~~in~~ a sample likely to contain Salmonella ~~containing target~~ bacteria and ~~a plurality of~~ other bacteria comprising the medium of claim 1 wherein the first substrate is 5-bromo-4-chloro-3-indoxyl-beta-D-galactopyranoside, and the second substrate is 3-indoxyl-beta-D-galactopyranoside.

5. (Currently amended) An isolation plating medium for the identification of Salmonella from a sample likely to contain ~~containing~~ Salmonella and ~~a plurality of~~ other bacteria comprising the mixture of claim 2 in combination with an inhibitor of the group consisting of bile salt, bile salt #3, tellurite, sodium novobiocin and cefsulodin.

6. (Currently amended) An isolation plating medium for the identification of Salmonella from a sample likely to contain ~~containing~~ Salmonella and ~~a plurality of~~ other bacteria comprising the medium of claim 1 in combination with a chromogenic substrate enhancer.

7. (Currently amended) An isolation plating medium for the identification of Salmonella from a sample likely to contain ~~containing~~ Salmonella and ~~a plurality of~~ other bacteria comprising the medium of claim 6 ~~claim 3~~ wherein the chromogenic substrate enhancer consists of at least one member of the group isopropyl-beta-D-thiogalactopyranoside, 1-O- -beta-D-galactopyranoside, Ethyl-beta-D-thiogalactopyranoside, and Methyl--beta-D-thiogalactopyranoside.

8. (Cancelled) An isolation plating medium for the identification of Salmonella from a sample containing Salmonella and a plurality of other bacteria comprising a mixture of (1) a carbohydrate capable of being a metabolic source for Salmonella and supporting colonies of Salmonella bacteria, (2) a pH indicator dye that changes the color of the plating medium responsive to a change in the pH of the medium to a first color different from and contrasting with the color of the medium, (3) a first chromogenic substrate that does not react with Salmonella and injects color into the medium of a second color responsive to the presence of beta-galactosidase, the second color contrasting with the first color and the color of the medium, (4) a second chromogenic substrate that does not react with Salmonella and injects color into the medium of approximately said second color responsive to

the presence of beta-galactosidase, the first substrate responding to the presence of beta-galactosidase more quickly than the second substrate, and (6) an ingredient for thickening the mixture in sufficient quantity to solidify the mixture.

9. (Currently amended) An isolation plating medium for the identification of Salmonella from a sample containing Salmonella and a plurality of other bacteria comprising the mixture of claim 1 ~~claim 8~~ wherein the carbohydrate is 2-Deoxy-D-Ribose, and the first and second chromogenic substrates are 5-bromo-4-chloro-3-indoxyl-beta-D- galactopyranoside and 3-indoxyl-beta-D- galactopyranoside, respectively.

10. An isolation plating medium for the identification of Salmonella from a sample containing Salmonella and a plurality of other bacteria consisting essentially of a mixture of (1) at least one carbohydrate that is metabolizable by Salmonella and is of the group consisting of 2-Deoxy-D-Ribose, xylose, mannitol, dulcitol, sorbitol, L-rhamnose and D-arabitol, the metabolic reaction between the carbohydrate and Salmonella bacteria releasing acid into the portion of the media of the reaction, (2) a pH indicator dye that changes the color of said portion of the plating medium to a first color responsive to a change in the pH of the medium, (3) a first chromogenic substrate that does not react with Salmonella bacteria and changes the color of the medium to a second color responsive to the presence of galactosidase, (4) a second chromogenic substrate that does not react to Salmonella bacteria and changes the color of the medium to approximately the same second color responsive to the presence of beta-galactosidase, the first substrate reacting to the presence of beta-galactosidase more quickly than the second substrate, and the first and second colors contrasting with each other and with the color of the medium, wherein the first substrate and the second substrate are members of the group consisting of 5-bromo-4-chloro-3-indoxyl-beta-D-galactopyranoside, 5-bromo-6-chloro-3-indoxyl-beta-D-galactopyranoside, 3-indoxyl-beta-D-galactopyranoside, 6-chloro-3-indoxyl-beta-D-galactopyranoside, 4-nitrophenyl-beta-D-galactopyranoside, 2-nitrophenyl-beta-D-galactopyranoside, 5-iodo-3-indoxyl-beta-D-galactopyranoside, 4-methylumbelliferyl-beta-D-galactopyranoside, and N-methylindoxyl-beta-D-galactopyranoside, and (5) an ingredient for thickening the mixture in sufficient quantity to solidify the mixture.

11. (Original claim) An isolation plating medium for the identification of Salmonella from a sample containing Salmonella and a plurality of different bacteria comprising the mixture of claim 10 wherein the ingredient for thickening the mixture is agar.

12. (Currently amended) The method of detecting the presence of Salmonella ~~target~~

bacteria in a sample that is likely to contain Salmonella ~~containing target~~ bacteria and other bacteria, said other bacteria releasing the enzyme beta-galactosidase upon reacting to a metabolic source, comprising the steps of inoculating a solid plating medium with said test sample, wherein said plating medium comprises a mixture of (1) a carbohydrate capable of being a metabolic source for Salmonella ~~the target~~ bacteria and supporting colonies of ~~the target~~ Salmonella bacteria but incapable of being a metabolic source for said other bacteria, the metabolic reaction between Salmonella bacteria and the carbohydrate releasing acid into the portion of the media of the reaction., (2) a pH indicator dye that changes the color of said portion of the plating medium to a first color different from the color of the medium responsive to a change in the pH of said portion of the medium ~~to a first color different from the color of the medium~~, (3) a first substrate that does not react with ~~the target~~ Salmonella bacteria but reacts to the enzymes beta-galactosidase to produce a second color in the medium where it is acted upon by the enzyme beta-galactosidase, ~~and injects color into the medium of a second color responsive to the presence of an enzyme produced by a reaction between other bacteria and said first substrate~~, the second color contrasting with the first color and the color of the medium, (4) a second substrate that does not react with Salmonella ~~the target~~ bacteria but reacts to the enzyme beta-galactosidase to produce said second color in the medium where it is acted upon by the enzyme beta-galactosidase, ~~and injects color into the medium of substantially the same color as the second color responsive to the presence of an enzyme produced by a reaction between other bacteria and said second substrate~~, the first substrate reacting to the presence of ~~an enzyme~~ the enzyme beta-galactosidase in a significantly shorter time than the second substrate reacts to said enzyme, whereby colonies of the other bacteria contain the second color, and (5) an ingredient for thickening the mixture in sufficient quantity to solidify the mixture, thereafter incubating said plating medium for a sufficient period to obtain colonies of bacteria producing one or more of said colors, and examining the plating medium for colonies of said first color.

13. (Currently amended) The method of detecting the presence of ~~target~~ Salmonella bacteria in a sample ~~containing target~~ that is likely to contain Salmonella bacteria and other bacteria, said other bacteria releasing the enzyme beta-galactosidase on reacting with a metabolic source, comprising the steps of claim 12 wherein the carbohydrate is one or more members of the group

consisting of 2-Deoxy-D-Ribose, xylose, mannitol, dulcitol, sorbitol, L-rhamnose and D-arabitol.

14. (Currently amended) The method of detecting the presence of ~~target~~ Salmonella bacteria in a sample ~~containing target~~ that is likely to contain Salmonella bacteria and other bacteria, said other bacteria releasing the enzyme beta-galactosidase on reacting with a metabolic source, comprising the steps of claim 12 wherein the first substrate and the second substrate are members of the group consisting of 5-bromo-4-chloro-3-indoxyl-beta-D- galactopyranoside, 5-bromo-6-chloro-3-indoxyl-beta-D- galactopyranoside, 3-indoxyl-beta-D-galactopyranoside, 6-chloro-3-indoxyl-beta-D-galactopyranpside, 4-nitrophenyl-beta-D-galactopyranoside, 2-nitrophenyl-beta-D- galactopyranoside, 5-iodo-3-indoxyl-beta-D-galactopyranoside, 4-methylumbelliferyl-beta-D-galactopyranoside and N-methylindoxyl-beta-D-galactopyranoside.

15. (Currently amended) The method of detecting the presence of ~~target~~ Salmonella bacteria in a sample ~~containing target~~ that is likely to contain Salmonella bacteria and other bacteria, said other bacteria releasing the enzyme beta-galactosidase on reacting with a metabolic source, comprising the steps of ~~claim 12~~ claim 14 in combination with a chromogenic substrate enhancer.

16. (Currently amended) The method of detecting the presence of Salmonella bacteria in a sample containing Salmonella bacteria and other bacteria, said other bacteria releasing the enzyme beta-galactosidase on reacting with a metabolic source, comprising the steps of claim 12 , wherein the carbohydrate capable of being a metabolic source for Salmonella ~~the target~~ bacteria and supporting colonies of Salmonella ~~the target~~ bacteria is one or more members of the group consisting of 2-Deoxy-D-Ribose, xylose, mannitol, dulcitol, sorbitol, L-rhamnose and D-arabitol, and wherein the first substrate and the second substrate are members of the group consisting of 5-bromo-4-chloro-3-indoxyl-beta-D-galactopyranoside, 5-bromo-6-chloro-3-indoxyl-beta-D-galactopyranoside, 3-indoxyl-beta-D-galactopyranoside, 6-chloro-3-indoxyl-beta-D-galactopyranpside, 4-nitrophenyl-beta-D-galactopyranoside, 2-nitrophenyl-beta-D-galactopyranoside, 5-iodo-3-indoxyl-beta-D-galactopyranoside, 4-methylumbelliferyl-beta-D-galactopyranoside and N-methylindoxyl-beta-D-galactopyranoside.